

# ERPsim

## Advanced Topics Webinar

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Webinar  
Online | February 6, 2024

**ERPsimLab**  
**HEC MONTRÉAL**

Serious games to learn enterprise  
systems and business analytics

# SAP Admin

1. Easy Login
2. Client Sharing
3. ODATA
4. Troubleshooting

# Feature: Easy Login

*Easy Login will generate a URL that, once provided to students, will allow connecting to the system without entering credentials.*

## Why/where use this feature?

- Facilitate the logon for ad-hoc or one-off events, where no future logons are needed
- Facilitate the logon for short classes/sessions:
  - Limited time for students to enter credentials/change passwords
  - Limited time to troubleshoot locked accounts due to many failed logon attempts

## How to use it?

- From SAP admin account:
  - Execute ZSTART with right game and company set
  - From ZSTART, click on "Options" and Generate an Easy Login URL
- Prepare and load the simulator and activate the teams
- Share the Easy Login URL with your students

Application P ERPsim Client Setup

Maple Introduction

System Help Settings

Execute Company Code Status User Management OData Set(s) Selection Financial Summary **Options** About

Exit

### ERPsim - Client Options

Usage Logs (Z\* transactions only)

Log usage data in table /BATONSIM/LOG Display Log

**Easy Login**

Activate Easy Login page Generate URL

<https://gordon.hec.ca:8001/easylogin/504?code=WE7OL>

Simulation Date to Calendar Date Mapping (for Analytics)

Starting calendar date for mapping (Round 1 Day 1) 2024-01-01

Number of calendar days per simulation day 1

ERPsim Extension Bar (EEB) for Fiori

Show/Hide quick access buttons (participants only)

Display "Reference Material" button

Replace "Reference Material" with transaction ZLINK

Display "OData Services" button

Save Cancel



1

2

3

# Client Sharing

*Sharing an SAP ERPsim client across 2 or more courses or groups of students for maximizing the use of a client.*

## Why?

- When you cannot have a dedicated client for each group of students
- Or when you need to share a client with your colleagues

## How to use it?

- Depending on your class size:
  - **Small/Medium class sizes:** Assigning different team letters to students (e.g., teams **A-J** dedicated for your course 1, and teams **K-T** for your course 2)
  - **Large class sizes:** Assigning same team letters, using different company sets for each group, and resetting passwords after each class

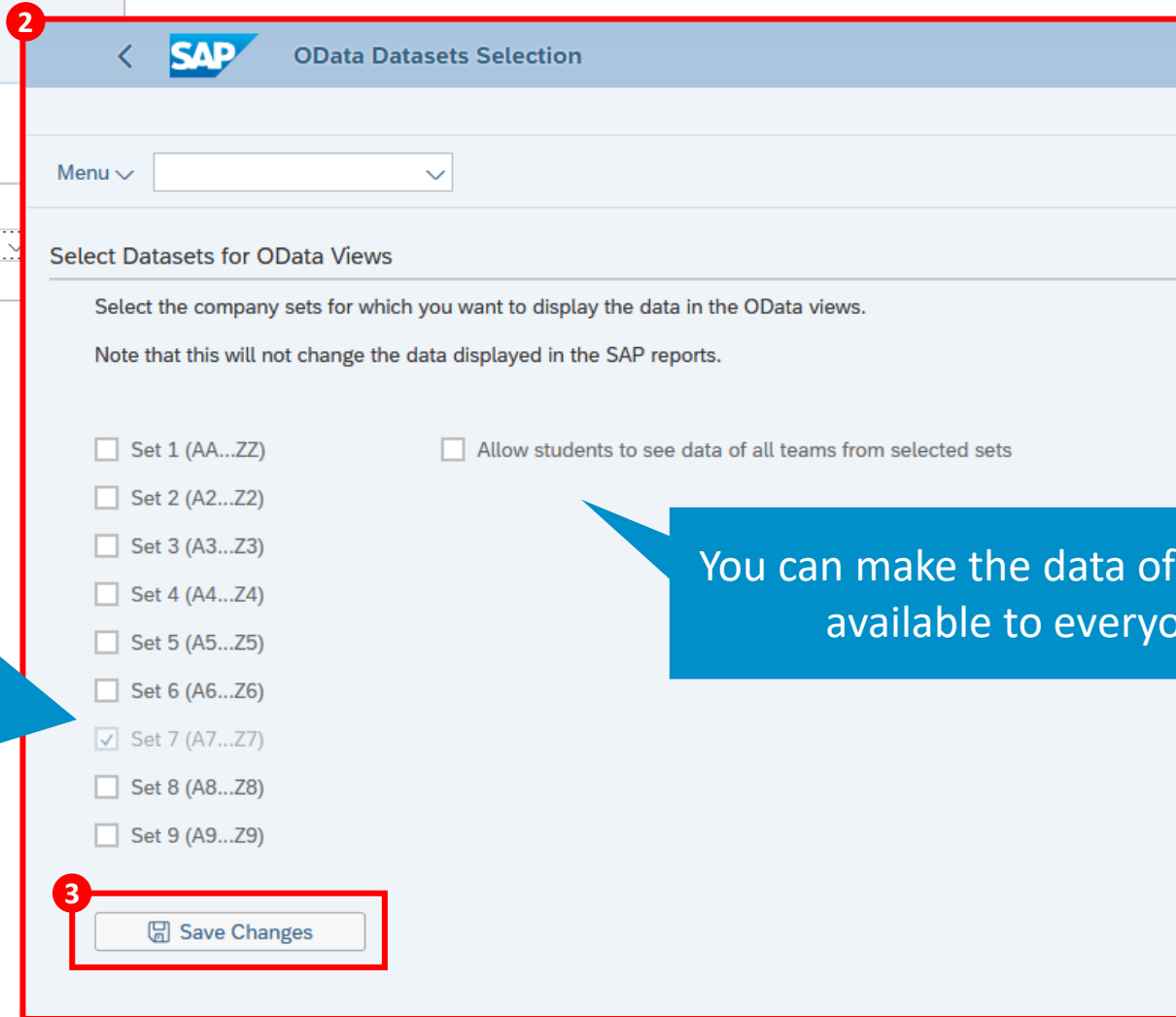
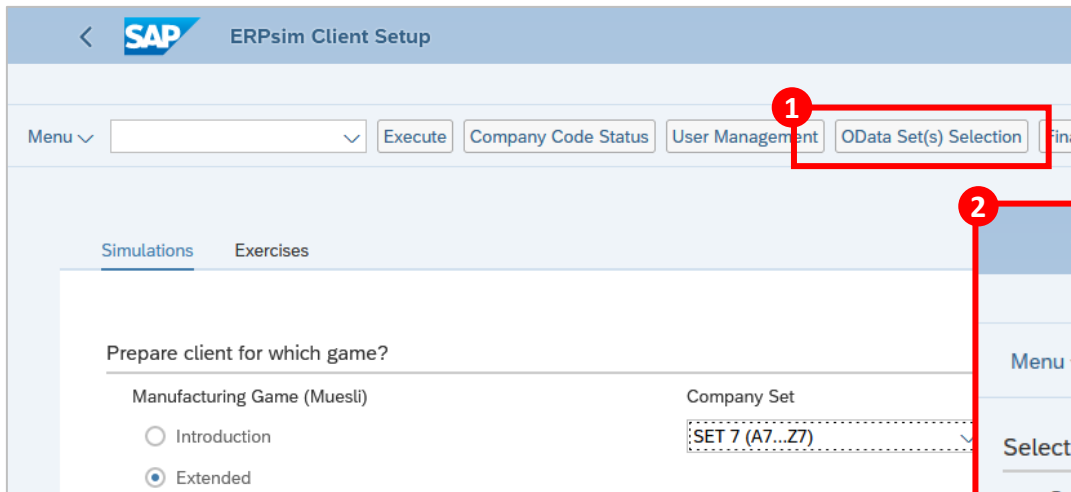
# Do more with OData

## Default Client Settings

- Data from current Company Set
- Data from your own team

## Possible using ZODATA

- Data from previous games/Sets (on this client)
- Data from all other teams playing the game



The current company set will be selected by default (and cannot be deselected). Simply check other company set(s) to add them to the available data returned by the service.

You can make the data of all teams available to everyone

# Troubleshooting

## COGI and CO1P

- Allows resolving goods movement errors
- See for instructions:  
<https://erpsim.hec.ca/en/node/625>

## ZREJECTED

- Allows modifying and releasing production order with "release rejected" status

## ZSCRAP

- Allows scrapping inventory of select companies and add financial impact accordingly

## ZLOAN

- Allows reimbursing any team's bank loan in one click, using available cash from said team

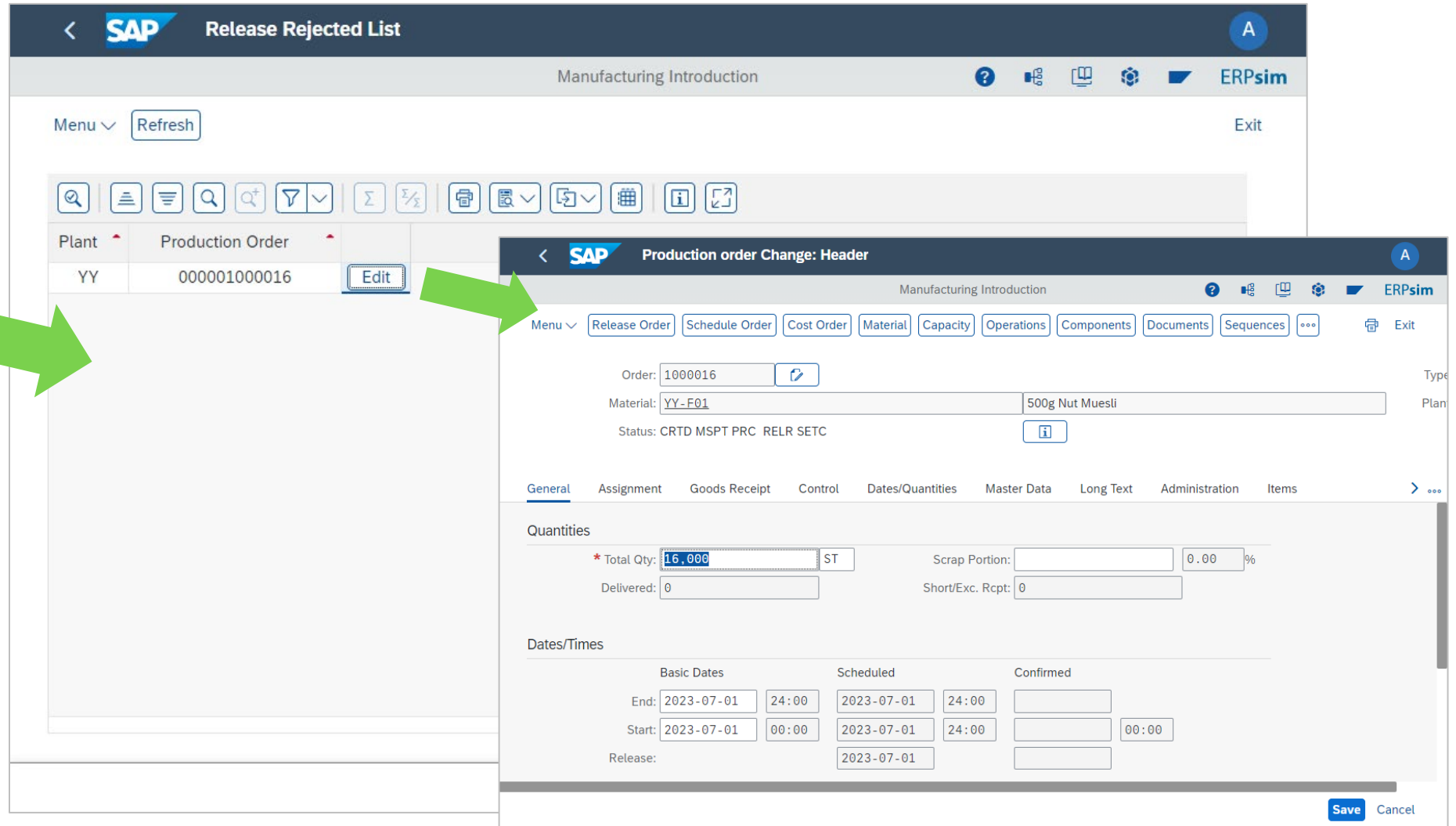


# ZREJECTED – Fix Rejected Prod. Orders

Rejected  
Production Orders  
ZREJECTED

 **1**

Release(s) Rejected



**SAP Release Rejected List**

Manufacturing Introduction

Menu  Exit

Plant	Production Order	
YY	000001000016	<input type="button" value="Edit"/>

**SAP Production order Change: Header**

Manufacturing Introduction

Menu

Order: 1000016

Material: YY-F01 500g Nut Muesli

Status: CRTD MSPT PRC RELR SETC

**General** Assignment Goods Receipt Control Dates/Quantities Master Data Long Text Administration Items

**Quantities**

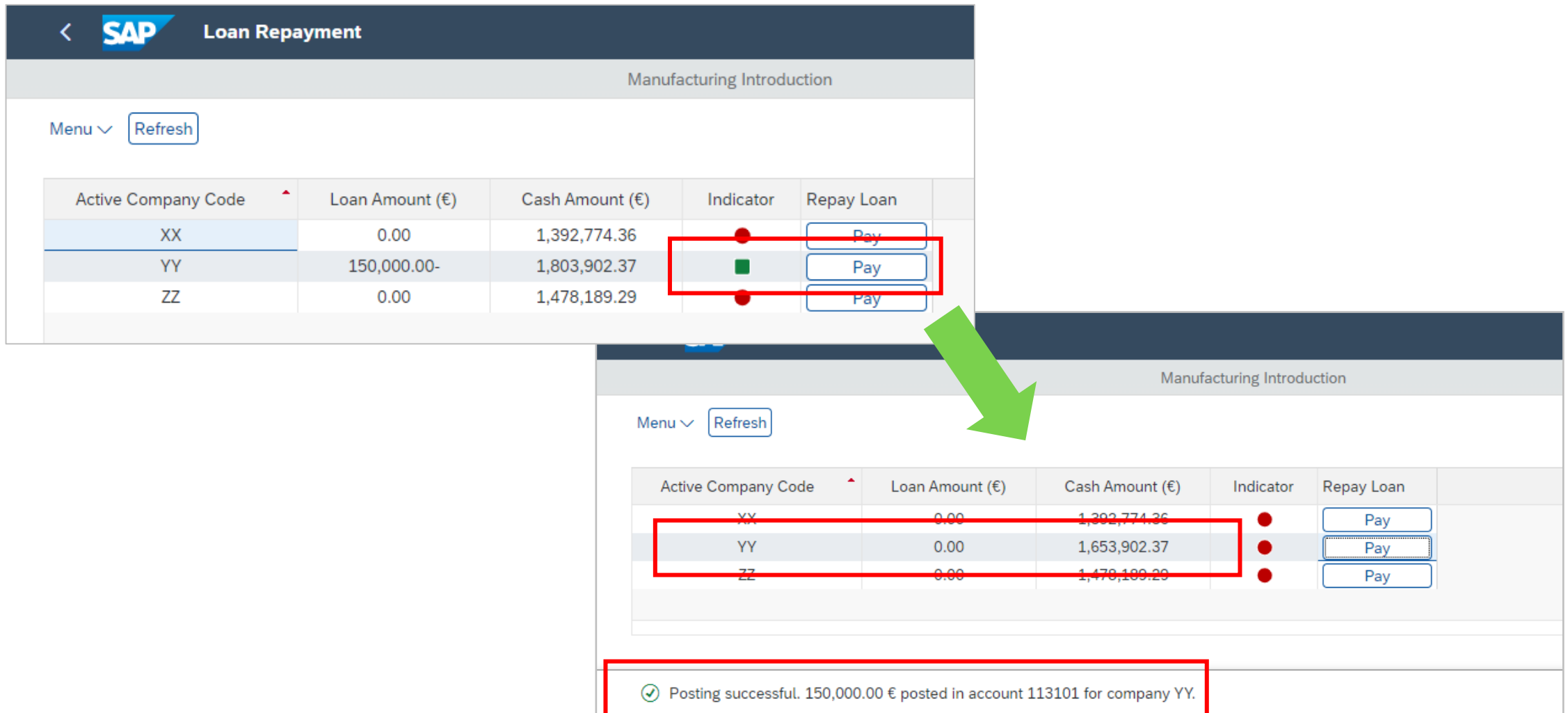
\* Total Qty: 16,000 ST Scrap Portion: 0.00 %

Delivered: 0 Short/Exc. Rcpt: 0

**Dates/Times**

Basic Dates		Scheduled		Confirmed	
End:	2023-07-01 24:00	2023-07-01	24:00		
Start:	2023-07-01 00:00	2023-07-01	24:00		00:00
Release:		2023-07-01			

# ZLOAN – One-click Bank Load Repayment



Manufacturing Introduction

Menu

Active Company Code	Loan Amount (€)	Cash Amount (€)	Indicator	Repay Loan
XX	0.00	1,392,774.36	●	<input type="button" value="Pay"/>
YY	150,000.00-	1,803,902.37	■	<input type="button" value="Pay"/>
ZZ	0.00	1,478,189.29	●	<input type="button" value="Pay"/>

Manufacturing Introduction

Menu

Active Company Code	Loan Amount (€)	Cash Amount (€)	Indicator	Repay Loan
XX	0.00	1,392,774.36	●	<input type="button" value="Pay"/>
YY	0.00	1,653,902.37	●	<input type="button" value="Pay"/>
ZZ	0.00	1,478,189.29	●	<input type="button" value="Pay"/>

✓ Posting successful. 150,000.00 € posted in account 113101 for company YY.

# ZSCRAP – Eliminate Excess Inventory

<
SAP
Scrap Materials - Manufacturing Game

Manufacturing Sustainability

Menu   Refresh

**Storage Location 02 - Main Warehouse**

Product	Inventory	Quantity to Scrap
F01 - 500g Nut Muesli	0.000	<input type="text"/>
F02 - 500g Blueberry Muesli	0.000	<input type="text"/>
F03 - 500g Strawberry Muesli	0.000	<input type="text"/>
F04 - 500g Raisin Muesli	0.000	<input type="text"/>
F05 - 500g Original Muesli	0.000	<input type="text"/>
F06 - 500g Mixed Fruit Muesli	0.000	<input type="text"/>
F11 - 1kg Nut Muesli	0.000	<input type="text"/>
F12 - 1kg Blueberry Muesli	10,674.000	<input style="border: 1px dashed black;" type="text"/>
F13 - 1kg Strawberry Muesli	0.000	<input type="text"/>
F14 - 1kg Raisin Muesli	0.000	<input type="text"/>
F15 - 1kg Original Muesli	0.000	<input type="text"/>
F16 - 1kg Mixed Fruit Muesli	0.000	<input type="text"/>

**Administration**

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Plant	AA
Scenario	Manufacturing

**Financial Impact on the Company**

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Click on "Calculate" and then on "Confirm Posting".

Manipulation	Posting Account	Posting Amount
Assets Reduction	792000 or 300000	0.00
Expenses Increase	890001 or 400001	0.00

Counterbalance Financial Posting

Cancel Posting
Calculate
Confirm Posting

**Storage Location 02N - North Warehouse**

Product	Inventory	Quantity to Scrap
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# ZSCRAP – Eliminate Excess Inventory

[←](#) **SAP** Scrap Materials - Manufacturing Game

[Menu](#)  [Refresh](#)

Storage Location 02 - Main Warehouse

Product	Inventory	Quantity to Scrap
F01 - 500g Nut Muesli	0.000	<input type="text" value="0.000"/>
F02 - 500g Blueberry Muesli	0.000	<input type="text" value="0.000"/>
F03 - 500g Strawberry Muesli	0.000	<input type="text" value="0.000"/>
F04 - 500g Raisin Muesli	0.000	<input type="text" value="0.000"/>
F05 - 500g Original Muesli	0.000	<input type="text" value="0.000"/>
F06 - 500g Mixed Fruit Muesli	0.000	<input type="text" value="0.000"/>
F11 - 1kg Nut Muesli	0.000	<input type="text" value="0.000"/>
F12 - 1kg Blueberry Muesli	10,674.000	<input type="text" value="674.000"/>
F13 - 1kg Strawberry Muesli	0.000	<input type="text" value="0.000"/>
F14 - 1kg Raisin Muesli	0.000	<input type="text" value="0.000"/>
F15 - 1kg Original Muesli	0.000	<input type="text" value="0.000"/>
F16 - 1kg Mixed Fruit Muesli	0.000	<input type="text" value="0.000"/>



Administration

Plant AA

Scenario Manufacturing

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Financial Impact on the Company

Click on "Calculate" and then on "Confirm Posting".

Manipulation	Posting Account	Posting Amount
Assets Reduction	792000 or 300000	1,529.98
Expenses Increase	890001 or 400001	1,529.98

Counterbalance Financial Posting

Manipulation	Posting Account	Posting Amount
Cash Increase	113300	1,529.98
Revenues Increase	800001	1,529.98

# Simulator Console

1. Fluid Interface
2. Auto-continue
3. Custom Modules
4. Market Preferences
5. Instructor Reports

# Fluid Interface

*The interface comes in two “flavors”: **fluid** and **legacy**.*

*Starting summer 2024, only the fluid version will be available*

## Why use the “fluid” interface?

- This is the latest version and support all the new features of ERPsim
- Improved UI, both for the administration as well as the viewer (clock, news, results) screens
- Possibility to “go back” while setting up a game to the previous screens (game selection, simulation settings, team activation)
- Several improvements have been made to the instructor reports and end-of-round report, including access to previous round results and side-by-side team/KPI comparison.

# Feature: Auto-continue

*The auto-continue feature allows you to “let the game run itself” without supervision.*

## Why use this feature?

- Help with hands-off management of the simulator, e.g., want to organize a practice session outside of normal class hours.

## How to use it?

- You have to set a few parameters:
  - When the simulation starts: day and time (e.g., on Feb 10, 1 pm eastern time)
  - How long each round plus the break between rounds will last (i.e., intervals) e.g., 30 min means a 10 min pause with 20 min round
  - Which round will be the last one (e.g., simulations stops and auto unload after 4 rounds)

Setting up Simulation SERVER: ross - CLIENT: JFM - USER: erpsim | ERPsimWS\_2023R07\_2

Launch a Simulation / Simulation Settings

Simulation Settings

Time Settings Modules Language

Number of Rounds: 12

Time per Round 00:20:00

Time per Step

Auto-Continue:

Continue

Auto-Continue:

Interval Between Round Starts: 00:20:00

Auto-Unload After Round: 12

Scheduled-Start:

06 / 02 / 2024

11 : 49 : 57

(GMT -5:00) Eastern Time (US & Canada)



# Feature: Custom Modules

*Most scenarios in ERPsim can be modified from their default. For example, you can set a Manufacturing game to require student to do production themselves by disabling production automation.*

### Why use this feature?

- To make the game harder or easier
- To integrate some elements of the cash-to-cash scenario in a live game

### To make the game easier or harder for students:

- **Harder:** Deactivate the procurement management module to force students perform the goods receipt manually (MIGO, MIRO, F-53)
- **Easier:** Deactivate warehousing costs so students won't be paying extra fees if exceeding the maximum inventory limit

**Be aware that by using this feature, the scenario will deviate from the documentation.  
Make sure to provide proper instructions to your students.**

Launch a Simulation

Setting up Simulation SERVER: ross - CLIENT: JFM - USER: erpsim | ERPsimWS\_2023R07\_2

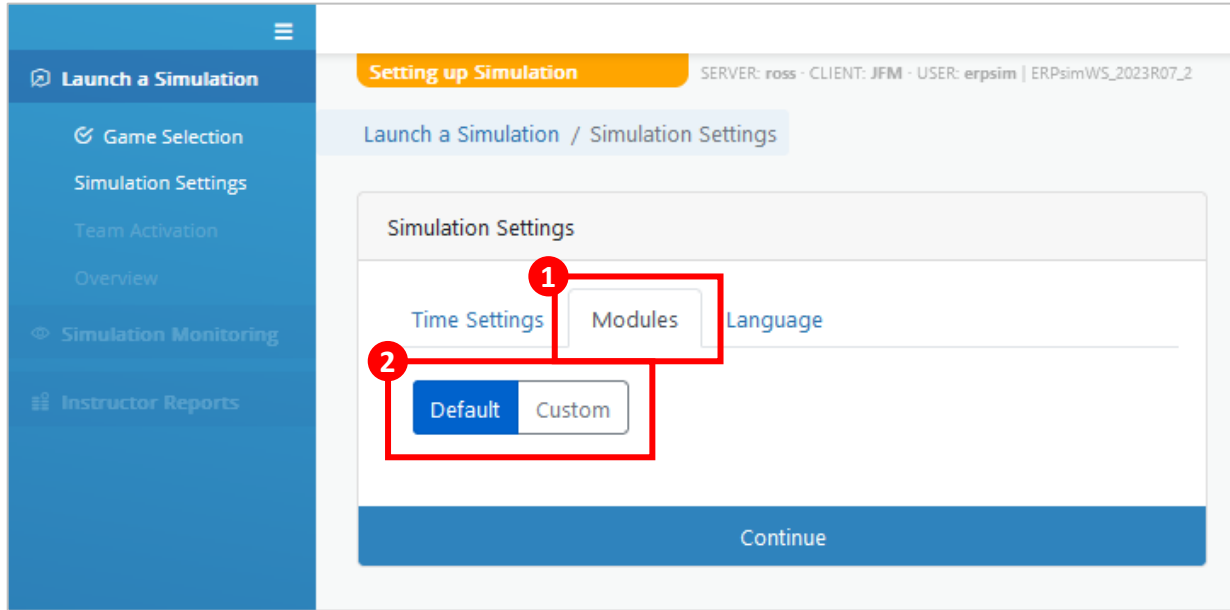
Launch a Simulation / Simulation Settings

### Simulation Settings

Time Settings Modules Language

Default Custom

Continue



3

### Simulation Settings

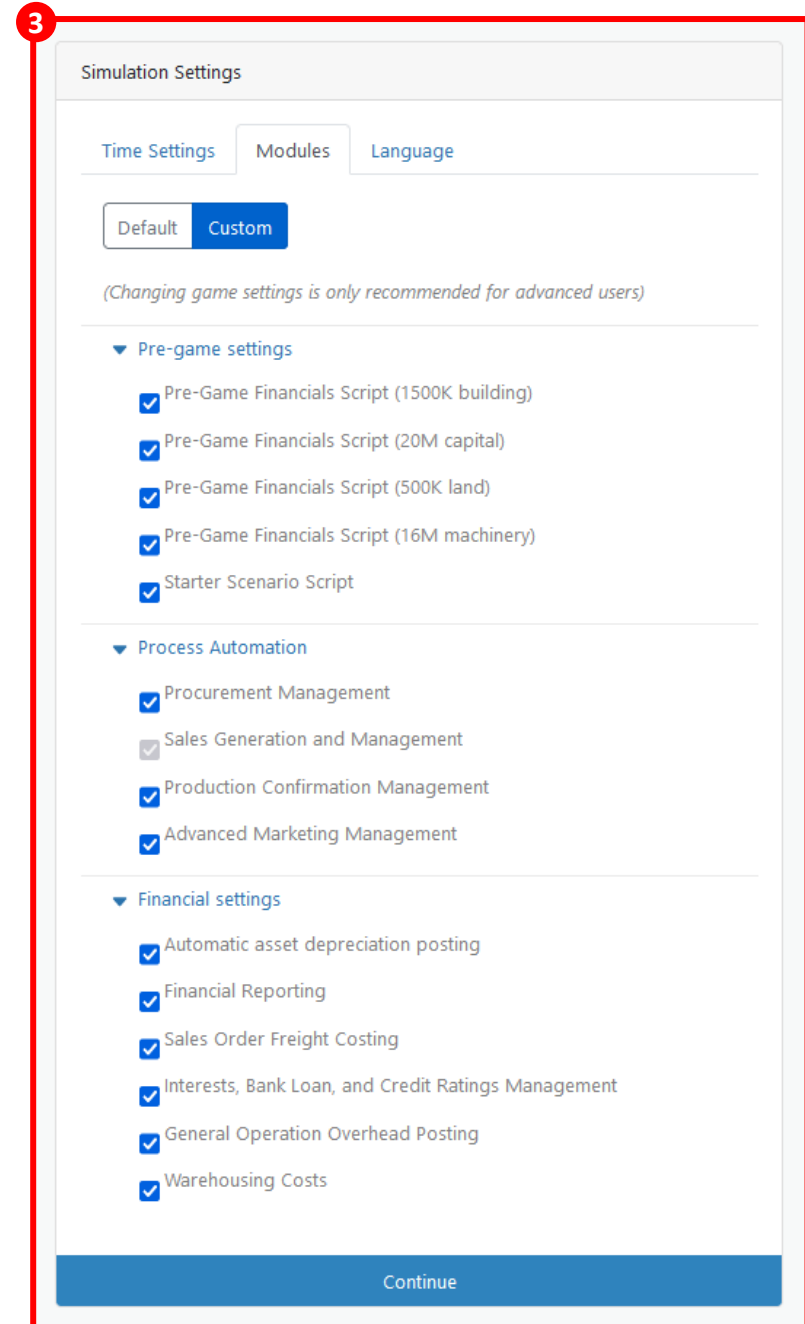
Time Settings Modules Language

Default Custom

*(Changing game settings is only recommended for advanced users)*

- ▼ Pre-game settings
  - Pre-Game Financials Script (1500K building)
  - Pre-Game Financials Script (20M capital)
  - Pre-Game Financials Script (500K land)
  - Pre-Game Financials Script (16M machinery)
  - Starter Scenario Script
- ▼ Process Automation
  - Procurement Management
  - Sales Generation and Management
  - Production Confirmation Management
  - Advanced Marketing Management
- ▼ Financial settings
  - Automatic asset depreciation posting
  - Financial Reporting
  - Sales Order Freight Costing
  - Interests, Bank Loan, and Credit Ratings Management
  - General Operation Overhead Posting
  - Warehousing Costs

Continue



# Market Preferences

*When a new simulation is started, market preferences of customer will be generated. Preferences are fixed during a game. The instructor can access this information at any time from the instructor's report menu.*

## What information does the report provide?

- The number of virtual shoppers (those who will visit stores in the regions) that have a preference for a product in a given region.
- The higher the number, the higher the preference for that product in that region

## Can these preference be copied from one game to another?

- Yes, from the "saved game" menu, before starting a new game.
- *And why do it?* For analytics consistency between two games.

# Instructor Reports

*The instructor's report section gives you access to all the aspects of the game being played. You can monitor and compare all teams in the same report. Most reports can be shown in table or graphic format.*

## Track and monitor teams' activities and performance during the game

- **Using procurement reports:** In the early game, to identify teams who are having difficulties (no purchase orders could mean the students have not run MRP / have not converted purchase requisitions).
- **Using production reports:** A team that is not releasing any production order during the manufacturing game is in trouble and needs help
- **Using financial statements:** A team that is in the parathesis or have no sales might need your help

# Other Topics

1. **Marketing Spending**
2. **Stock Transfer Scheduling**
3. **Elements of Surprise**

# Marketing Spending

*Daily euro amounts spent to promote a specific product in a specific region.*

## Why?

- You must decide on how much to invest in marketing. However, advertising is not always necessary

## When?

- Only after gaining some market information

## How much to spend?

- Small amounts, since the expenses are daily and quickly will add up
- Not more than 3 to 5% of sales

# Marketing Spending

## Common mistakes:

- Overspending
- Spending on many products, many regions
- Spending on the same product across regions
- Spending on products not in inventory
- Not monitoring the impact
- Entering once and forgetting

Marketing Plan (Daily Amounts)				
Material	Description	North	South	West
YY-F01	500g Nut Muesli			
YY-F02	500g Blueberry Muesli			
YY-F03	500g Strawberry Muesli			
YY-F04	500g Raisin Muesli			
YY-F05	500g Original Muesli			
YY-F06	500g Mixed Fruit Muesli			
YY-F11	1kg Nut Muesli			
YY-F12	1kg Blueberry Muesli			
YY-F13	1kg Strawberry Muesli			
YY-F14	1kg Raisin Muesli			
YY-F15	1kg Original Muesli			
YY-F16	1kg Mixed Fruit Muesli			

# Stock Transfer Scheduling

## How does it work?

- Push or Pull, scheduling frequency, for each product and region
- From main warehouse to regional locations
- Proportional, if not enough in your inventory
- If frequency is changed, the next transfer day depends on:
  - The last transfer day,
  - When you changed the schedule.

## When?

- To begin the game
- Learning and adapting
- Exploring and exploiting



# Stock Transfer Scheduling

## Common mistakes:

- Pushing too much
- Pulling too little
- Pushing or pulling too often
- Not aligned with procurement
- Not responding to market demand
- Entering once and forgetting
- Forgetting to Save

Planning Mode      Scheduling

Push      3 days

Pull

Allocation Plan

Material	Description	North	South	West
ZZ-T01	Milk			
ZZ-T02	Cream			
ZZ-T03	Yoghurt			
ZZ-T04	Cheese			
ZZ-T05	Butter			
ZZ-T06	Ice Cream			

# Elements of Surprise

- **OData:** unavailable, for own team, for all teams
- **Digital Transformation:** round-by-round discovery
- **ZLINK:** Disclose information as game is played
- **Inherit a company:**
  - Mid-game teams' switch
  - Play a few rounds on-behalf, start the game on Round N
- Lock access to the system
- **Sustainability:** variable carbon tax, reports for a fee, single or multiple vendors, selling location (MW, Regions, both), sustainable investments, determine carbon sources (overhead, production,...)

# SAP NAAC 2024 & ERPsim UGM

Save the Date

**Jun 17-20, 2024**

ERPsim Lab 20<sup>th</sup> Anniversary Celebration

Montréal, Canada

# Questions

# Thank You!

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